Claims

1. A method for detecting von-Willebrand factor (vWF) activity comprising assaying a sample in the presence of
   (a) a soluble form or portion of glycoprotein Ib(α) (GPIb(α)) and
   (b) ristocetin, or a functionally equivalent substance.

2. The method of claim 1, wherein said detection is carried out by detecting the formation of a complex of vWF and GPIb(α) and/or a formed complex of vWF and GPIb(α).

3. The method of claim 1, wherein said GPIb(α) is bound to a solid support.

4. The method of claim 3, wherein said GPIb(α) is bound to said solid support by a specifically reacting anti-GPIb(α) antibody.

5. The method of claim 2, wherein said complex is bound to a solid support.

6. The method of claim 5, wherein said complex is bound to said support by a specifically reacting anti-GPIb(α) antibody, by a specifically reacting anti-vWF antibody, by a specifically reacting anti-Factor VIII antibody and/or by collagen.

7. The method of any one of claims 1 to 6, wherein said detection is carried out by a specifically reacting anti-vWF antibody, by a specifically reacting anti-Factor VIII antibody, by a specifically reacting anti-GPIb(α) antibody, by collagen and/or mixtures thereof.

8. The method of any one of claims 4, 6 and 7, wherein said antibody is a monoclonal antibody, a polyclonal antibody or a chimeric antibody.

9. The method of claim 7 or 8, wherein said antibody or said collagen is detectably labeled.

10. The method of any one of claims 3 to 9, wherein said solid support is a plastic, a glass, a silicon, a colloidal metal, a cellulose or a polymeric support.

11. The method of claim 9, wherein said solid support is selected from the group consisting of solid organic polymers, cellulose/cellulose-based membranes, colloidal metal particles, plastic surfaces, or any combination thereof.

12. The method of claim 11, wherein said colloidal metal particle is a gold particle.

13. The method of claim 11, wherein said plastic surface is the well of a mictrotiter plate.

14. The method of claim 11, wherein said solid organic polymer is a latex bead.

15. The method of any one of claims 1 to 14, wherein said detection is carried out by an heterogeneous or by an homogeneous assay.

16. The method of claim 15, wherein said heterogeneous assay is an enzyme linked immuno sorbent assay (ELISA), a radioimmunoassay (RIA), an immuno radio metric assay (IRMA), a fluorescent immunoassay (FIA), a chemiluminescent immuno assay (CLIA) or an electro chemiluminescent immuno assay (ECL).

17. The method of claim 15, wherein said homogeneous assay is an agglutination assay.

18. The method of claim 17, wherein said agglutination assay is based on agglutination of latex beads.

19. The method of claim 17, wherein said agglutination is measured by electric

field variation, magnetic field variation, turbidimetric variation or light scattering.

20. The method of any one of claims 1 to 19, wherein said sample is a blood sample.

21. The method of claim 20, wherein said blood sample is a plasma sample.

22. The method of claims 20 or 21, wherein said sample is diluted.

23. A method for the discrimination between von Willebrand disease (vWD) type 1 and type 2 comprising the steps of

(a) detecting vWF activity in a test sample according to the method of any one of claims 1 to 22;

(b) determining the amount of vWF-antigen in said test sample;

(c) determining the ratio between vWF-activity and vWF-antigen for said test sample; and

(d) comparing the under (c) obtained ratio to the range of ratios established as normal range.

24. Use of a soluble form or portion of glycoprotein Ib(α) (GPIb(α)) for carrying out the method of any one of claims 1 to 23.

25. Use of ristocetin or a functional equivalent substance for carrying out the method of any one of claims 1 to 23.

26. Use of a specifically reacting anti-GPIb(α) antibody for carrying out the method of any one of claims 4 to 23.

27. Use of a specifically reacting anti-vWF antibody for carrying out the method of any one of claims 6 to 23.

28. Use of a kit for carrying out the method of any one of claims 1 to 23 comprising at least one of the following:

(a) a soluble form or portion of glycoprotein Ib(α) (GPIb(α));

(b) ristocetin or a functional equivalent substance;

(c) an antibody as defined in any one of claims 4, 6, 7, 8 and 9; or

(d) a solid support as defined in any one of claims 10 to 14.

29. A kit comprising at least one of the following:

(a) a soluble form or portion of glycoprotein Ib(α) (GPIb(α));

(b) ristocetin, or a functional equivalent substance;

(c) an antibody as defined in any one of claims 4, 6, 7, 8 and 9; or

(d) a solid support as defined in any one of claims 10 to 14,

adapted for carrying out the method of any one of claims 1 to 23, optionally further comprising a standard and/or means for detection in homogeneous and/or heterogeneous assays as defined in any one of claims 15 to 19.

30. The method of any one of claims 1 to 23, the use of any one of claims 24 to 28 or the kit of claim 29, wherein said soluble form or portion of glycoprotein Ib(α) (GPIb(α)) is recombinantly produced.

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